

**HARBOR ISLAND S&G OU  
QUARTERLY PROGRESS REPORT  
July 2016**

*Prepared by de maximis, inc.*

---

**PROJECT NAME:** Harbor Island Soil and Groundwater Operable Unit (S&G OU)  
Harbor Island Superfund Site  
Seattle, Washington

**PERIOD COVERED:** April through June 2016

The information provided on groundwater monitoring and specific design sets is based on information reported from the consultants listed below.

- Groundwater Mon: AECOM  
on behalf of the Harbor Island S&G OU Group
  
- Design Set 1A: Floyd Snider  
on behalf of Vigor Shipyards
  
- Design Set 2: AECOM  
on behalf of Port of Seattle
  
- Design Set 3: Floyd Snider  
on behalf of Vigor Shipyards

## **ACTIONS TAKEN TOWARD COMPLIANCE WITH DECREE DURING QUARTER:**

### **GENERAL:**

#### **Groundwater Monitoring Program:**

The long-term groundwater monitoring program is scheduled to run through 2035. A technical memorandum was completed and submitted to EPA on August 25, 2015 with recommendations for optimizing the groundwater monitoring program. On October 8, 2015, EPA approved scope reductions<sup>1</sup> which were implemented starting in December 2015. On June 13, 2016, Addendum 1 to the *Groundwater Monitoring Plan, Revision 3* was submitted to EPA documenting the approved reduction in scope. Scope changes include:

- Sampling frequency reduced from semi-annual to annual sampling in the summer;
- Analyte list reduced from nine total metals [arsenic, cadmium, copper, lead, mercury, nickel, silver, thallium, and zinc] and available cyanide to three total metals [copper, lead, and zinc] and available cyanide. Benzene will continue to be sampled at one well; and
- Number of monitoring wells reduced from 22 to 15 wells. Monitoring wells include 14 compliance wells and one interior well.

Annual groundwater monitoring for 2016 was initiated on June 29 and will be completed July 1, 2016 as per the reduced scope described above for routine monitoring. All samples are being collected as planned. The five-year review monitoring scope will not change.

Routine groundwater samples for the June 2016 event are being collected from the following wells: HI-1, HI-2, HI-3, HI-4, HI-5, HI-6A, HI-9A, HI-10, HI-11, HI-12, HI-16, HI-18, MW-01R, MW-213, and FW-13.

### **SPECIFIC DESIGN SETS:**

#### **Design Set 1:**

- Completed.

---

<sup>1</sup> U.S. EPA, 2015. U.S. EPA Comments – Request for Groundwater Monitoring Reduction for the Harbor Island Soil and Groundwater Operable Unit and Supporting Technical Memorandum. Harbor Island Soil and Groundwater Operable Unit, Harbor Island Superfund Site, Seattle, WA. October 8.

**Design Set 1A:**

- The West Shed system is currently intermittently operational, as FW-17 and FW-19 groundwater pumps and skimmers are routinely shut-off, as necessary, to allow for LNAPL re-accumulation. The FW-19 passive skimmer will be continually monitored for LNAPL re-accumulation.
- The East Shed recovery system remains shut down due to absence of LNAPL in wells FW-3, FW-20, and FW-21. These wells are considered inactive and are now monitored on a quarterly basis. The status of the East Shed recovery system remains unchanged since the system became inactive in November 2014. Currently, the East Shed remains in place and a schedule has not been determined to date for its disassembly.

**Design Set 2:**

- Completed.

**Design Set 3:**

- Completed.

**ACTION ITEMS FOR NEXT QUARTER (July – September 2016):**

**Groundwater Monitoring Program:**

- The current annual groundwater monitoring event will be completed July 1. Data from the event will be validated and the 2016 Groundwater Report will be submitted with the quarterly project report. The next annual groundwater monitoring event is scheduled for June 2017.

**SPECIFIC DESIGN SETS:**

**Design Set 1:**

- Completed.

**Design Set 1A:**

- The West Shed system is currently intermittently operational, as FW-17 and FW-19 groundwater pumps and skimmers are routinely shut-off, as necessary, to allow for LNAPL re-accumulation. The FW-19 passive skimmer will be continually monitored for LNAPL re-accumulation.
- The East Shed recovery system remains shut down due to absence of LNAPL in wells FW-3, FW-20, and FW-21. These wells are now considered inactive and are now monitored on a quarterly basis. Currently, the East Shed remains in place and a schedule has not been determined to date for its disassembly.
- Submit the quarterly report on the operation of the LNAPL Recovery System to USEPA.

**Design Set 2:**

- Completed.

**Design Set 3:**

- Completed.

**PROJECT COMPLETION:**

Design Set	Remedial Design	Remedial Action
Design Set 1 - <ul style="list-style-type: none"><li>• T18</li><li>• T18D</li></ul>	100% 100%	100% 100%
Design Set 1A	100%	95%
Design Set 1B	100%	100%
Design Set 2	100%	100%
Design Set 3-TPH Hot Spot at Vigor	100%	100%

- Groundwater Monitoring Program 30%

**ANTICIPATED DELAYS/PROBLEMS:**

- None.

**RESULTS OF SAMPLING/TESTING/FIELD MEASUREMENTS:**

- **Groundwater Monitoring Program:**

Data from the annual groundwater monitoring event will be validated and the 2016 Groundwater Report will be submitted with the quarterly project report.

**Design Set 1A**

- Detailed reporting of product recovery operations for this period will be included in the next quarterly LNAPL Recovery System progress report submitted directly to USEPA by Vigor Shipyard.